Mellanox MLNX-OS® Release Notes for IBM SX90Y3452

Software Ver. 3.3.3706

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1 Introduction

This document is the Mellanox MLNX-OS® Release Notes for IBM SX90Y3452.

MLNX-OS is a comprehensive management software solution that provides optimal performance for cluster computing, enterprise data centers, and cloud computing over Mellanox SwitchX® family. The fabric management capabilities ensure the highest fabric performance while the chassis management ensures the longest switch up time.

The MLNX-OS documentation package includes the following 3 documents:

- A command reference guide – provides general information concerning the MLNX-OS command line interface
- A user manual – provides general information concerning the scope and organization of MLNX-OS as well as basic configuration examples
- Release notes – provides information on the supported platforms, changes and new features, and reports on software known issues as well as bug fixes

2 Supported Platforms, Firmware, Cables and Licenses

2.1 Supported Switch Systems

Table 1 - Supported Switch Systems

Model Number	Description
SX90Y3452	32-Port 56Gb/s FDR InfiniBand Blade Switch System

2.2 Supported CPU Architecture

- PPC 460 CPU families

2.3 Supported Firmware

- SwitchX® firmware version 9.2.3002
- SwitchX-2 firmware version 9.2.3002
- ConnectX®-2 firmware version 2.9.1314 and higher
- ConnectX-3 firmware version 2.11.1250 and higher

2.4 Supported Mezzanine

- ConnectX-2, Mezzanine P/N 90Y3460 (MalayaP), 2.9.1314 and higher
- ConnectX-2, Mezzanine P/N 90Y3480 (MalayaP-Net), 2.9.1314 and higher
- ConnectX-3, Mezzanine P/N 90Y3488 (Merlin), 2.30.2010 and higher
- ConnectX-3, Mezzanine P/N 90Y3484 (Nevada), 2.11.1450 and higher
- ConnectX-3, Mezzanine P/N 90Y3456 (MalayaX), 2.11.1450 and higher
- ConnectX-3, Mezzanine P/N 90Y3468 (MalayaX-Net), 2.11.1450 and higher

2.5 Supported CPLD

- 1.0.18

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2.6 Supported Software Licenses

For the software licenses supported with MLNX-OS® software please refer to the “Licenses” section of the “Getting Started” chapter of the *Mellanox MLNX-OS User Manual*.

2.7 Supported Cables

Please refer to the *Mellanox Products Approved Cable Lists* document for the list of supported cables.

http://www.mellanox.com/related-docs/user_manuals/Mellanox_approved_cables.pdf

When using AOC cables longer than 100m use one VL to achieve full wire speed.

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3 Changes and New Features

Table 2 - IBM SX90Y3452 Changes and New Features

Category	Description
Release 3.3.3706	
General	Bug fixes.
Release 3.3.3704	
VPD	Changes to VPD block 1 capability bits.
Release 3.3.3702	
EHCM	Added detailed reasons for failure of CMM upgrade feature.
EHCM	Added fingerprint support for CMM update feature.
EHCM	Image bank 1 represents the active image and image bank 2 represents the non-active image.
VPD	Boot Rom will be reported in image segment 1.
WebUI	Security enhancements.
Release 3.3.3500	
EHCM	Enhancements to software update using CMM feature.
Release 3.3.3400	
EHCM	Added fwImageProtocols OIDs support.
Release 3.3.3000	
General	New Linux kernel 2.6.32.
WebUI	Applied new Apache version. Added temperature critical and warning thresholds to temperature graph.
Software Management	Added support for fetching image from TFTP server using IPv6.
U-boot	Updated u-boot - memory access optimization.
Unbreakable Links	Added Link Level Retry (LLR) support for InfiniBand interfaces.
Modules	Added support for the Mellanox LR4 module, P/N MC2210511-LR4.
Network Interfaces	Added interface range support. By using the interface range configuration mode, a range of ports can be easily configured with the same parameters.
SNMP	SNMP MIB enhancements. General MIBs: Entity-MIB, Entity-Sensor-MIB, Entity-State-MIB and Private MIB restructuring for InfiniBand systems.
Release 3.2.0596	
WebUI	Added support for internal ports in WebUI.
Chassis Management	Added I^2C stability protection.

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Table 2 - IBM SX90Y3452 Changes and New Features

Category	Description
Configuration Management	Removed “jump-start configuration wizard” feature.
Interfaces	Quality enhancement to link initialization.
System Management	Fixed NTP vulnerability issue.
U-boot	Updated u-boot version.

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4 Known Issues

For any possible errata due to hardware issues, please refer to the switch support product page.

The following table describes MLNX-OS® known issues in this software release and possible workarounds.

4.1 General Known Issues

Table 3 - General Known Issues (Sheet 1 of 2)

Index	Category	Description	Possible Workaround
1.	Management Interfaces	DHCPv4/v6, VLAN, Zeroconf are not supported on IPoIB.	
2.	Management Interfaces	When re-enabling interface ib0, MTU settings are not saved.	Manually configure MTU settings after re-enabling interface ib0.
3.	Management Interfaces	When modifying the hostname either in the WebUI or the CLI, the modification is not reflected in the Base SM submenu in the WebUI.	Reboot the system.
4.	Management Interfaces	The CLI command `ip default-gateway <interface>` sets the gateway address to 0.0.0.0 and prevents the user from adding other gateways.	Delete the entry by using the `no ip default-gateway` command.
5.	Management Interfaces	The switch might have an expired HTTPS certification.	Generate a new certificate by changing the hostname.
6.	NTP	The command `show ntp` always lists the last configured NTP server even if it has been deleted. This output can be safely ignore.	
7.	Software Management	Only one image is allowed to be copied into the system (using the `image fetch` command). The user must remove old image files prior to fetching a new one.	
8.	Software Management	Upon upgrade if there are more than 4 ACLs, all of the ACL configuration is deleted. If there are 4 ACLs or less, rules with a sequence number larger than 495 are deleted.	
9.	Configuration Management	Loading the wrong system configuration file may hang the system. For example: an attempt to use an SX1016 configuration file on an SX6036/SX6536/SX1035 system may cause the system to hang.	
10.	Configuration Management	After loading a new configuration file, please reboot the system. Otherwise, configuration might not be properly applied.	

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Table 3 - General Known Issues (Sheet 2 of 2)

Index	Category	Description	Possible Workaround
11.	Configuration Management	The command set `revert {factory [keep-basic | keep-connect]| saved}` is removed.	Use the equivalent CMM command instead
12.	Configuration Management	Merging two binary configuration files using the command `configuration merge` is currently not supported.	Use the configuration text file "Apply" option instead.
13.	Logging	"DROPPED MSG" errors may appear during reload (shutdown phase). These errors can be safely ignored.	
14.	User Management	Some RADIUS and TACACS+ configurations keep the user locked out of the machine due to timeout limitation.	Press the reset button for 15 seconds, and then log in using your local authentication. Additionally, fix the configuration to avoid any future timeout issues.
15.	User Management	Logging into the system as USERID from the Serial Connection results in login failure the first attempt.	Log in again. The second attempt will result is successful login.
16.	WebUI	Only a single WebUI login per host is possible.	To have multi-sessions, open several browser simultaneously.
17.	WebUI	Reversing the time clock can result in WebUI graphs' corrupted data.	Clear the graphs data after setting the clock.
18.	WebUI	Enabling/disabling HTTPS while connected via HTTP to the WebUI may result in temporary loss of connection to the webpage.	Refresh the page or navigate back using the browser's back button.
19.	WebUI	Switching between binary configuration files when connected to the WebUI using HTTPS might result in the following message being displayed: "Switched configuration to '***', which was already the active database." This message is incorrect and can be safely ignored.	
20.	SNMP	ifPhysAddress OID returns the prefix of the Node GUID of the ib0 management.	
21.	SNMP	The error "Cannot find module (MELLANOX-MIB)" can appear in the log when performing rollback to an older MLNX-OS version. This error can be safely ignored.	
22.	Chassis Management	Upon reaching critical thermal threshold, SR bit 2 is not set although the system is shut down and SR bit 3 is set instead.	

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4.2 InfiniBand Known Issues

Table 4 - InfiniBand Known Issues

Index	Category	Description	Possible Workaround
1.	InfiniBand Interfaces	Port hardware speed and width capabilities settings affect port speed and width admin capabilities.	
2.	InfiniBand Interfaces	Setting the port width to 1x in the WebUI and/or CLI is currently not supported.	
3.	InfiniBand Interfaces	Clearing the port counters when no SM is running in the subnet, may result in error in the log, it can be safely ignored.	

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5 Bug Fixes

The following table describes MLNX-OS® bug fixes in this software release.

Table 5 - Bug Fixes

Index	Category	Description
1.	Configuration Management	Binary and text configuration files apply fix.
2.	EHCM	Switch reload is added after “update -activate” CMM command run.
3.	EHCM	Image update may not complete successfully if performed using CMM.

6 Submitting a Service Request

The Mellanox® Support Center is at your service for any issues. You may access the Warranty Service through the Web Request Form by using the following link:

http://www.mellanox.com/content/pages.php?pg=support_index.

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